

Applicant : Christer O. Andreasson
Appl. No. : 10/085,472
Examiner : Jared Fureman
Docket No. : 706737.35 (formerly 263/291)

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Please cancel claims 12 and 13 without prejudice.

Please amend claims 1-4, 6, 8-11, 14 and 17 as follows.

1. (amended) An apparatus for tracking medical products, each of the medical products having a Radio Frequency Identification (RFID) tag uniquely associated therewith, the apparatus comprising:

a casing comprising a ~~compartment~~ plurality of lockable drawers for receiving one or more medical products therein;

a reader for reading the RFID tags associated with the medical products in the drawers ~~compartment~~; and

a processor coupled to the reader for receiving and processing readings of the RFID tags in the drawer ~~compartment~~ to identify the medical products in the drawer ~~compartment~~.

2. (amended) The apparatus of claim 1, wherein the processor identifies a medical product removed from a drawer ~~the compartment~~ by determining a difference between readings of the RFID tags in the drawer ~~compartment~~ taken before and after the medical product is removed from the drawer ~~compartment~~.

3. (amended) The apparatus of claim 2, wherein the processor verifies that the medical product removed from the drawer ~~compartment~~ is authorized to be removed by comparing a product identifier associated with the RFID tag of the removed medical

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product to a product identifier of a medical product authorized to be removed from the drawer compartment.

4. (amended) The apparatus of claim 3, wherein the product identifier comprises at least one of a product name, a ~~product~~ serial number, a product lot number, and a patient identifier.

5. (original) The apparatus of claim 3, further comprising a display coupled to the processor, and wherein the processor displays a mismatch notification on the display when the processor detects a mismatch between the product identifier read from the RFID tag of the removed medical product and the product identifier of the medical product authorized to be removed.

6. (amended) The apparatus of claim 5, wherein the mismatch notification comprises the product identifier read from the RFID tag of the removed medical product and the product identifier of the medical product authorized to be removed.

7. (original) The apparatus of claim 1, wherein the apparatus includes a single reader for reading the RFID tags of all medical products in the casing.

8. (amended) The apparatus of claim 1, wherein each drawer ~~the casing~~ comprises a plurality of compartments, and wherein the reader comprises a plurality of readers for reading the RFID tags of medical products in respective compartments.

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9. (amended) The apparatus of claim 1, further comprising an input device coupled to the processor for identifying a patient to be associated with one or more medical products being removed from the drawer compartment.

10. (amended) The apparatus of claim 1, further comprising a return drawer compartment for returning unused medical products, and a reader for reading an RFID tag of any returned medical product placed in the return drawer compartment, the processor coupled to the reader for identifying the returned medical product.

11. (amended) A method for monitoring medical products stored in a medication-dispensing unit, each of the medical products comprising a Radio Frequency Identification (RFID) tag uniquely associated therewith, the method comprising:

removing a medical product from the dispensing unit;

identifying the medical product removed from the dispensing unit by detecting removal of the RFID tag associated with the medical product removed from the dispensing unit; and

verifying that the medical product removed from the dispensing unit is authorized to be removed from the dispensing unit, the verifying step comprising comparing a product name identified by the RFID tag removed from the dispensing unit with a product authorized to be removed from the dispensing unit; and-

further comprising identifying a patient, and wherein the verifying step further comprises comparing a product name identified by the RFID tag removed from the

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dispensing unit with a list of medical products scheduled for delivery to the identified patient.

12. (cancelled)

13. (cancelled)

14. (amended) A method for monitoring medical products stored in a medication-dispensing unit, each of the medical products comprising a Radio Frequency Identification (RFID) tag uniquely associated therewith, the method comprising:

removing a medical product from the dispensing unit;

identifying the medical product removed from the dispensing unit by detecting removal of the RFID tag associated with the medical product removed from the dispensing unit, The method of claim 11, wherein the steps of identifying the medical product removed from the dispensing unit further comprises:

reading the RFID tags of the medical products in the dispensing unit before the medical product is removed from the dispensing unit;

reading the RFID tags of the medical products in the dispensing unit after the medical product is removed from the dispensing unit; and

determining a difference between the readings of the RFID tags taken before and after the medical product is removed from the dispensing unit to identify the medical product removed.

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15. (original) The method of claim 14, wherein the verifying step comprises comparing a product name identified by the RFID tag removed from the dispensing unit with a product name authorized to be removed from the dispensing unit.

16. (original) The method of claim 15, wherein the product name of the medical product removed from the dispensing unit is obtained by reading the RFID tags before the medical product is removed from the dispensing unit.

17. (amended) The method of claim 14, further comprising identifying a patient, and wherein the verifying step further comprises comparing a product name identified by the RFID tag removed from the dispensing unit with a list of medical products scheduled for delivery to the identified patient.

18. (original) The method of claim 17, wherein the product name of the medical product removed from the dispensing unit is obtained by reading the RFID tags before the medical product is removed from the dispensing unit.

19. (original) The method of claim 11, further comprising:

returning a medical product to the dispensing unit; and

reading an RFID tag associated with the medical product to identify the returned medical product.

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20. (original) The method of claim 19, further comprising determining an intended patient for the returned medical product, and sending a notice that the intended patient did not receive the returned medical product.

21. (original) A method for monitoring removal of medical products stored in a medication-dispensing unit, each of the medical products comprising a Radio Frequency Identification (RFID) tag uniquely associated therewith, the method comprising:

reading the RFID tags of the medical products in the dispensing unit before removing one or more medical products from the dispensing unit;

removing one or more medical products from the dispensing unit;

reading the RFID tags of the medical products in the dispensing unit after the one or more medical products are removed from the dispensing unit; and

determining a difference between the readings of the RFID tags taken before and after the one or more medical products are removed from the dispensing unit to identify the one or more medical products removed from the dispensing unit.

22. (original) The method of claim 21, further comprising verifying that the one or more medical products removed from the dispensing unit are authorized to be removed from the dispensing unit.

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23. (original) The method of claim 22, wherein the verifying step comprises comparing a product name identified by an RFID tag removed from the dispensing unit with a product name authorized to be removed from the dispensing unit.

24. (original) The method of claim 22, further comprising identifying a patient, and wherein the verifying step further comprises comparing a product name identified by the RFID tag removed from the dispensing unit with a list of medical products scheduled for deliver to the identified patient.

25. (original) The method of claim 21, further comprising transmitting an inventory notice from the dispensing unit when a quantity of RFID tags stored within the dispensing unit falls below a threshold.

26. (original) The method of claim 21, further comprising:

returning a medical product to the dispensing unit;

reading the RFID tags of the medical products in the dispensing unit after the medical product is returned to the dispensing unit; and

determining a difference between the readings of the RFID tags taken before and after the medical products are returned to the dispensing unit to identify the medical product returned to the dispensing unit.

27. (original) The method of claim 26, further comprising determining an intended patient for the returned medical product, and sending a notice that the intended patient did not receive the returned medical product.

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Please add the following new claims 28 – 39.

28. (new) A system for tracking and monitoring medical products within a healthcare facility for medical products received by a pharmacy of the facility to administration to patients including inventory of medical products in medication dispensing units of the healthcare facility, and for verifying receipt of medical products in the dispensing units, monitoring removal thereof and tracking delivery of medical products from dispensing units to patients, and for verifying that patients receive correct medical products before administration comprising

a pharmacy terminal for receiving product information and RFID tag information of medical products in the pharmacy,

a management computer for receiving product information read from RFID tags of the medical products from the pharmacy terminal, and for comparing information of the medical products shipped to the healthcare facility with the information received from the pharmacy terminal to verify that the medical products were received by the pharmacy,

a plurality of medication dispensing units for receiving medical products to be dispensed to patients, and each including a medication dispensing terminal, each dispensing unit including at least one storage drawer for storing medical products therein, each dispensing terminal being capable of reading RFID tags of medical products inside the dispensing unit before the dispensing unit receives medical products from the pharmacy and reading RFID tags inside the dispensing unit after medical products are placed therein for determining the difference in RFID tag readings before and after the medical products are disposed in the dispensing unit, each dispensing terminal being capable of communicating with the management computer for detecting a mismatch between the medical products received by the dispensing unit and medical products withdrawn from the pharmacy, and

a patient room terminal for communicating with the management computer and including an RF reader for verifying the patient to receive medical products and comparing

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medical product information read from RFID tags with information of medical products to be administered to the patient, and for detecting a mismatch.

29. (new) A system as in claim 28 wherein at least one medication dispensing unit includes a movable medication cart.

30. (new) A system as in claim 28 including an RF reader near a doorway of the healthcare facility for reading RFID tags as medical products are removed from the pharmacy.

31. (new) A system as in claim 28 including an RF reader mounted near a doorway for reading RFID tags of medical products prior to administration to patients.

32. (new) A system as in claim 28 wherein the storage drawers are lockable and at least some of the drawers include plural compartments for receiving medical products.

33. (new) A system as in claim 28 wherein in medication dispensing terminal can detect unauthorized removal of medical products from the unit to notify an administrator of the healthcare facility of a mismatch.

34. (new) A system as in claim 28 wherein the patient room terminal comprises an RF reader pad in a patient's room for reading RFID tags of medical products to be dispensed to patients.

35. (new) A system for a healthcare facility for tracking and monitoring medical products received by the facility for ultimate administration to patients and including medication dispensing units for containing medical products, and for verifying receipt of medical products by the dispensing units as well as monitoring removal thereof to track delivery of medical products comprising

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a terminal for receiving product information and RFID tag information of medical products received at the facility,

a management computer for receiving product information read from RFID tags of medical products from the terminal,

a plurality of medication dispensing units for receiving medical products to be dispensed to patients, and

at least one RF reader mounted near a doorway of the healthcare facility for automatically reading RFID tags of medical products as they are moved within the facility.

36. (new) A system as in claim 35 wherein the RF reader is located near a patient's room for automatically reading RFID tags of medical products as a healthcare worker moves medical products to the patient room.

37. (new) A system as in claim 35 wherein the terminal is in a pharmacy of the facility and the RF reader is located near the pharmacy.

38. (new) A system for a healthcare facility for tracking and monitoring medical products received by the facility for ultimate administration to patient and including medication dispensing units for containing medical products, and for verifying receipt of medical products by the dispensing units as well as monitoring removal thereof to track delivery of medical products comprising

a terminal for receiving product information and RFID tag information of medical products received at the facility,

a management computer for receiving product information read from RFID tags of medical products from the terminal,

a plurality of medication dispensing units for receiving medical products to be dispensed to patients, and

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at least one RF reader mounted near a doorway of a patient's room of the healthcare facility for automatically reading RFID tags of medical products as they are moved to the patient's room.

39. (new) The apparatus of claim 1 wherein the casing is a dispensing unit which automatically opens the drawers containing medical products to be removed via a healthcare worker accessing the dispensing unit.